

INFORMAL COMMENTS

The applicant would like to make the following informal comments on the written opinion of the International Searching Authority concerning the International Patent Application PCT/JP2005/010198.

1. Claim 1

The hierarchical (layered) coding disclosed in the cited document D2 is intended to ensure the reproduction of a video signal in the case of a deterioration in the error rate of a transmission channel, and D2 clearly describes that it is essential to set transport priorities on respective layers after partitioning video information into a base layer and enhancement layers (see page 979, left column, lines 3-4).

On the other hand, in Claim 1 of the present invention, there is no difference in transmission priority between the first layer code and the second layer code, and these first and second layer codes are placed temporally in tandem in a broadcast stream under exactly the same transmission conditions. This is intended to achieve the protection of synchronization for continuing reproduction even if the timing of burst synchronization is shifted from the correct timing on the receiver side in the burst data transmission system.

Furthermore, according to the layered coding disclosed in D2, the base layer alone can be used to generate a video signal for reproduction with a lower quality, while the enhancement layer alone cannot be used to generate such video signal for reproduction. In other words, a higher quality video signal cannot be obtained without combining the base layer and the enhancement layer (see page 978, right column, line 53 to page 979, left column, line 3, and FIG. 4).

On the other hand, Claim 1 of the present invention describes that the first layer code and the second layer code, respectively, can

be used for reproduction of a broadcast source. In other words, the first layer code or the second layer code can be used individually to generate a video signal for reproduction.

As described above, the usage of the first and second layer codes in Claim 1 of the present invention has a completely different effect from the generally-used layered coding disclosed in the document D2, and therefore has an inventive step.

In addition, the first and second layer codes in Claim 1 of the present invention are not limited to being intended for the hierarchical (layered) coding.

2. Claims 2 and 3

The document D1 discloses that received relative timing information is used as it is for power control of a receiving module (see paragraph [0022]).

On the other hand, in Claims 2 and 3 of the present invention, a prediction window signal is generated based on received relative timing information and other elements, and the generated prediction window signal is used for power control of the receiving side.

As described above, the prediction window signal described in Claims 2 and 3 of the present invention is a signal used for predicting a time at which a data burst to be received appears in the broadcast stream, and is completely different from the relative timing information which is directly used for determining the timing of receiving a burst, as disclosed in D1.

3. Claim 4

The document D1 discloses that relative timing information indicating a relative time period between transmissions of bursts is encapsulated into a data burst for transmission (see paragraphs [0017] to [0018]).

On the other hand, in Claim 4 of the present invention, burst

time information indicating a time at which a next data burst to be received appears in the broadcast stream is added into each data burst for transmission, and the burst time information can be an absolute time.

5 As described above, since the absolute time of the next burst data can be represented by the burst time information used in Claim 4 of the present invention, the present invention is distinguishable from the document D1 which limits its scope only to a relative time.

10 **4. Claim 5**

The document D1 only discloses that a time source 228 may extract time information from standard transport stream time, and does not disclose specifically how and for what the extracted time information is to be used (see paragraph [0021]).

15 On the other hand, Claim 5 of the present invention clearly describes that the reference time is corrected according to the burst time information, and therefore does not infringe the document D1 which does not disclose how to use the time information.

20 **5. Claim 6**

The document D1 discloses that when a burst is lost, the receiving unit is turned into a constant on state for a predetermined length of time until it receives another burst. Or, the predetermined length of time may slightly exceed the maximum expected length of time between bursts.

On the other hand, in Claim 6 of the present invention, a window width of a prediction window signal is expanded by a predetermined length of time. More specifically, the prediction window width is expanded as time passes. Therefore, the present invention operates so that the time period for which the receiving unit is turned on is lengthened as time passes.

As described above, the present invention is different from the document D1 in which the receiving unit is in a constant on state

until it receives another burst or the turned-on time period is determined based on the interval between bursts.

6. Claims 7 and 8

5 The hierarchical (layered) coding disclosed in the cited document D2 is intended to ensure the reproduction of a video signal in the case of a deterioration in the error rate of a transmission channel, and D1 clearly describes that it is essential to set transport priorities on respective layers after partitioning video
10 information into a base layer and enhancement layers (see page 979, left column, lines 3-4). In addition, D2 describes, as a specific example, that prioritization can be realized with using different error-control capabilities (see page 979, left column, lines 16-21).

15 On the other hand, in Claims 7 and 8 of the present invention, error correction codes are added to the first layer code and the second layer code individually so as to make a difference between the correction capabilities of the error correction codes added to the first and second layer codes. This is intended to make the data synchronization robustness of the second layer code higher than
20 that of the first layer code which is placed temporally in tandem with the second layer code in a broadcast stream, even if the timing of the prediction window signal is shifted from the correct timing.

25 As described above, the present invention is different from the document D2 which aims at setting priorities on video signals for their reproduction directly based on the difference of error-control capabilities.

7. Claims 9, 10 and 11

Since Claim 1 has inventive step, independent claims 9 to 11 corresponding to Claim 1 also have inventive step.
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